

The invention claimed is:

1. A method implemented in a wireless device, the method comprising:

receiving a Downlink Control Information (DCI) message for scheduling transmission on a Physical Uplink Shared Channel (PUSCH), the DCI message having a DCI format 0\_0, the DCI format 0\_0 corresponding to a format without an uplink downlink assignment index (DAI) in an uplink grant; and

if a quantity of Hybrid Automatic Repeat Request (HARQ) information bits to be transmitted on the scheduled PUSCH is one information bit, reserving resources on the scheduled PUSCH for 2 HARQ bits.

2. The method of claim 1 further comprising:

transmitting the scheduled PUSCH based on the DCI message.

3. The method of claim 1, wherein the DCI message does not contain an indication of how many resources to reserve for HARQ bits.

4. The method of claim 1, wherein the DCI message is of fallback DCI message.

5. The method of claim 1, wherein the transmission on the scheduled PUSCH does not include Channel State Information (CSI) in the transmission.

6. The method of claim 1, wherein the transmission on the scheduled PUSCH includes reserving resources on the scheduled PUSCH for at least one HARQ bit if the wireless device has Channel State Information (CSI) to report.

7. The method of claim 1, wherein the transmission on the scheduled PUSCH includes mapping a first part of Channel State Information (CSI) to predefined portion of the scheduled PUSCH.

8. The method of claim 1, wherein the predefined portion of the scheduled PUSCH corresponds to an end portion of the scheduled PUSCH.

9. A wireless device configured to communicate with a network node, the wireless device comprising a radio interface and a processing circuitry, where the processing circuitry is configured to:

receive a Downlink Control Information (DCI) message for scheduling transmission on a Physical Uplink Shared Channel (PUSCH), the DCI message having a DCI format 0\_0, the DCI format 0\_0 corresponding to a format without an uplink downlink assignment index (DAI) in an uplink grant; and

if a quantity of Hybrid Automatic Repeat Request (HARQ) information bits to be transmitted on the scheduled PUSCH is one information bit, reserve resources on the scheduled PUSCH for 2 HARQ bits.

10. The wireless device of claim 9, where the processing circuitry is further configured to transmit the scheduled PUSCH based on the DCI message.

11. The wireless device of claim 9, wherein the DCI message does not contain an indication of how many resources to reserve for HARQ bits.

12. The wireless device of claim 9, wherein the transmission on the scheduled PUSCH does not include Channel State Information (CSI) in the transmission.

13. The wireless device of claim 9, wherein the transmission on the scheduled PUSCH includes reserving sources on the scheduled PUSCH for at least one HARQ bit if the wireless device has Channel State Information (CSI) to report.

14. The wireless device of claim 9, wherein transmission on the scheduled PUSCH includes mapping a first part of Channel State Information (CSI) to predefined portion of the scheduled PUSCH.

15. The wireless device of claim 9, wherein the predefined portion of the scheduled PUSCH corresponds to an end portion of the scheduled PUSCH.

16. A network node configured to communicate with a wireless device, the network node comprising a radio interface and comprising processing circuitry, where the processing circuitry is configured to:

schedule the wireless device on a Physical Uplink Shared Channel (PUSCH) using a Downlink Control Information (DCI) message, the DCI message having a DCI format 0\_0, the DCI format 0\_0 corresponding to a format without an uplink downlink assignment index (DAI) in an uplink grant; and

transmit the DCI message to the wireless device, the DCI message configured to, if a quantity of Hybrid Automatic Repeat Request (HARQ) information bits to be transmitted on the scheduled PUSCH is one information bit, reserve resources on the scheduled PUSCH for 2 HARQ bits.

17. The network node of claim 16, wherein the DCI message does not contain an indication of how many resources to reserve for HARQ bits.

18. A method implemented in a network node, the method comprising:

scheduling the wireless device on a Physical Uplink Shared Channel (PUSCH) using a Downlink Control Information (DCI) message, the DCI message having a DCI format 0\_0, the DCI format 0\_0 corresponding to a format without an uplink downlink assignment index (DAI) in an uplink grant; and

transmitting the DCI message to the wireless device, the DCI message configured to, if a quantity of Hybrid Automatic Repeat Request (HARQ) information bits to be transmitted on the scheduled PUSCH is one information bit, reserve resources on the scheduled PUSCH for 2 HARQ bits.

19. The method of claim 18, wherein the DCI message does not contain an indication of how many resources to reserve for HARQ bits.

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